



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER OF PATENTS AND TRADEMARKS  
Washington, D.C. 20231  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/403,262	01/05/2000	NIKOLAUS THERES	11216/002001	7039

7590 01/23/2003

FISH & RICHARDSON  
225 FRANKLIN STREET  
BOSTON, MA 021102804

EXAMINER

MEHTA, ASHWIN D

ART UNIT	PAPER NUMBER
----------	--------------

1638

DATE MAILED: 01/23/2003

18

Please find below and/or attached an Office communication concerning this application or proceeding.

**Advisory Action**

Application No.

09/403,262

Applicant(s)

THERES, NIKOLAUS

Examiner

Ashwin Mehta

Art Unit

1638

--The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

THE REPLY FILED 27 December 2002 FAILS TO PLACE THIS APPLICATION IN CONDITION FOR ALLOWANCE. Therefore, further action by the applicant is required to avoid abandonment of this application. A proper reply to a final rejection under 37 CFR 1.113 may only be either: (1) a timely filed amendment which places the application in condition for allowance; (2) a timely filed Notice of Appeal (with appeal fee); or (3) a timely filed Request for Continued Examination (RCE) in compliance with 37 CFR 1.114.

**PERIOD FOR REPLY** [check either a) or b)]

- a) ☒ The period for reply expires 6 months from the mailing date of the final rejection.
- b) ☐ The period for reply expires on: (1) the mailing date of this Advisory Action, or (2) the date set forth in the final rejection, whichever is later. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of the final rejection. ONLY CHECK THIS BOX WHEN THE FIRST REPLY WAS FILED WITHIN TWO MONTHS OF THE FINAL REJECTION. See MPEP 706.07(f).

Extensions of time may be obtained under 37 CFR 1.136(a). The date on which the petition under 37 CFR 1.136(a) and the appropriate extension fee have been filed is the date for purposes of determining the period of extension and the corresponding amount of the fee. The appropriate extension fee under 37 CFR 1.17(a) is calculated from: (1) the expiration date of the shortened statutory period for reply originally set in the final Office action; or (2) as set forth in (b) above, if checked. Any reply received by the Office later than three months after the mailing date of the final rejection, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

1. ☐ A Notice of Appeal was filed on \_\_\_\_\_. Appellant's Brief must be filed within the period set forth in 37 CFR 1.192(a), or any extension thereof (37 CFR 1.191(d)), to avoid dismissal of the appeal.
2. ☒ The proposed amendment(s) will not be entered because:
- (a) ☒ they raise new issues that would require further consideration and/or search (see NOTE below);
- (b) ☐ they raise the issue of new matter (see Note below);
- (c) ☒ they are not deemed to place the application in better form for appeal by materially reducing or simplifying the issues for appeal; and/or
- (d) ☐ they present additional claims without canceling a corresponding number of finally rejected claims.

NOTE: See Continuation Sheet.

3. ☒ Applicant's reply has overcome the following rejection(s): See Continuation Sheet.
4. ☐ Newly proposed or amended claim(s) \_\_\_\_\_ would be allowable if submitted in a separate, timely filed amendment canceling the non-allowable claim(s).
5. ☒ The a) ☐ affidavit, b) ☐ exhibit, or c) ☒ request for reconsideration has been considered but does NOT place the application in condition for allowance because: See Continuation Sheet.
6. ☐ The affidavit or exhibit will NOT be considered because it is not directed SOLELY to issues which were newly raised by the Examiner in the final rejection.
7. ☒ For purposes of Appeal, the proposed amendment(s) a) ☒ will not be entered or b) ☐ will be entered and an explanation of how the new or amended claims would be rejected is provided below or appended.

The status of the claim(s) is (or will be) as follows:

Claim(s) allowed: \_\_\_\_\_.

Claim(s) objected to: \_\_\_\_\_.

Claim(s) rejected: 23-42.

Claim(s) withdrawn from consideration: \_\_\_\_\_.

8. ☐ The proposed drawing correction filed on \_\_\_\_\_ is a) ☐ approved or b) ☐ disapproved by the Examiner.
9. ☐ Note the attached Information Disclosure Statement(s) (PTO-1449) Paper No(s). \_\_\_\_\_.
10. ☒ Other: Note the attached Form 948.

Continuation of 2. NOTE: an indefinite issue is raised in claims 35 and 36, over the recitation "relative to an endogenous sequence" What sequence is being referred to?.

Continuation of 3. Applicant's reply has overcome the following rejection(s): the rejection of claim 23 under 35 U.S.C. 112, 2nd paragraph, presented under item 11 of the last Office action; the rejection of claim 32 under 35 U.S.C. 112, 2nd paragraph, for the term "modified"; the rejection of claims 35-37 under 35 U.S.C. 112, 2nd paragraph, in item 11 of the last Office action..

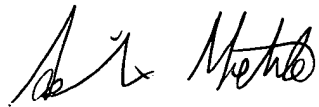
Continuation of 5. does NOT place the application in condition for allowance because: the response does not overcome all of the rejections under 35 U.S.C. 112, 1st and 2nd paragraphs or the claim objections. Regarding the rejection under 35 U.S.C. 2nd paragraph, of the term "derivative" in claim 23, Applicants argue that amended claim 23 further defines derivatives as those that hybridize under stringent conditions to SEQ ID NO: 1, implicating its structure (response, page 4, 3rd paragraph). However, the specificaiton does not define "highly stringent conditions."

Regarding the indefinite rejection over the recitation "highly stringent contidtions" in claim 24: Claim 24 is cancelled in the amendment, but the recitation now appears in claim 23. Applicants argue that page 23 of the specification indicates that reduced stringency is less than 50o C, and therefore high stringeny would be higher than this figure (response, page 5). Page 23 of the specification does not refer to 50oC as being a "reduced stringency condition", but it appears as if Applicants were actually referring to page 29. However, the specifcation does not teach that anything above this temperature is a high stringency condition. Page 23 teaches that southern hybridizations were carried out in 6 x SSPE. However, the wash conditions are also needed to define the stringencies of the hybridization procedure, and the conditions that define high stringency conditions are not defined.

In response to the rejection of claims 23-42 under 35 U.S.C. 1<sup>st</sup> paragraph, written description, Applicants argue that the claimed derivatives hybridize to SEQ ID NO: 1 under highly stringent conditions, and that the specification defines highly stringent as higher than 50oC (response, paragraph bridging pages 5-6). However, the specifcaton does not define highly stringent conditions, as discussed above. Applicants also argue that working examples are not required (response, page 6, 1<sup>st</sup> full paragraph). However, the only structures described by the specification as being required for side-shoot, petal, and abscission zone formation in plants are the nucleotide sequences that encode the amino acid sequence of SEQ ID NO: 2. The specification does not describe any other species of the broad genus of nucleic acids, which includes nucleic acids that may control side-shoot, petal, and abscission zone formation in any manner. The specification does not correlate the structure of any other specie that has the activity of SEQ ID NO: 2.

Regarding the rejection of claims 23-42 under 35 U.S.C. 112, 1<sup>st</sup> paragraph for lack of enablement: Applicants argue that one of ordinary skill in the art would accept, on it's face, that the Ls gene is involved in shoot, petal, and abscission zone formation, and that, as such, it would be acknowledged that increasing the expression of the Ls gene would lead to increased shoot, petal, and abscission zone formation. Applicants argue that evidence to support the conclusion that one of skill in the art could not predict the phenotype of transgenic plants expressing Ls genes has not been offered (response, page 7, 1<sup>st</sup> paragraph). The specification teaches that cosmids containing the Ls gene complemented Ls mutant plants for the formationof side shoots, petals and abscission zone (page 16). This was acknowledged by the Examiner in the Office action mailed 13 September 2001, and that the Ls gene is involved in side shoot, petal, and abscission zone formation in non-transgenic plants is not the issue. However, those skilled in the art would not automatically assume that overexpression of a gene whose function is known would definitely enhance that function in a transgenic plant. The Office action mailed 13 September 2001 cited an example of a transgenic plant transformed with a gene that already had an endogenous copy of it, and wherein the transgenic plant did not display an enhanced function of that gene. The instant specification indicates that transgenic plants transformed with the Ls cDNA in sense orientation have been made (Example 7). However, the specification does not teach the phenotype of that transenic plant. One cannot use the claimed method and the plants transformed with the claimed nucleic acid in sense orientation if the phenotype of that plant is not known.

Applicants also argue, regarding the lack of enablement of fragments and derivatives, that one of skill in the art is more than capable of making small deletions, insertions, truncations, fusions, etc., each of which retain the ability to promote shoot, petal, and abscission zone formation (response, page 7, 2<sup>nd</sup> paragraph). However, that the procedure for making a fragment or an insertion in a nucleotide sequence, is known in the art is not the issue. The specification does not provide any such guidance as to how the structure of SEQ ID NO: 2 may changed without affecting its activity. The specification does not make any suggestions at all as to the sequences that are dispensable, sequences that may be substituted without affecting activity, what SEQ ID NO: 2 should be fused to, etc.

  
**ASHWIN D. MEHTA, PH.D**  
**PATENT EXAMINER**

**Attachment for PTO-948 (Rev. 03/01, or earlier)**  
**6/18/01**

**The below text replaces the pre-printed text under the heading, "Information on How to Effect Drawing Changes," on the back of the PTO-948 (Rev. 03/01, or earlier) form.**

**INFORMATION ON HOW TO EFFECT DRAWING CHANGES**

**1. Correction of Informalities -- 37 CFR 1.85**

New corrected drawings must be filed with the changes incorporated therein. Identifying indicia, if provided, should include the title of the invention, inventor's name, and application number, or docket number (if any) if an application number has not been assigned to the application. If this information is provided, it must be placed on the front of each sheet and centered within the top margin. If corrected drawings are required in a Notice of Allowability (PTOL-37), the new drawings **MUST** be filed within the **THREE MONTH** shortened statutory period set for reply in the Notice of Allowability. Extensions of time may **NOT** be obtained under the provisions of 37 CFR 1.136(a) or (b) for filing the corrected drawings after the mailing of a Notice of Allowability. The drawings should be filed as a separate paper with a transmittal letter addressed to the Official Draftsperson.

**2. Corrections other than Informalities Noted by Draftsperson on form PTO-948.**

All changes to the drawings, other than informalities noted by the Draftsperson, **MUST** be made in the same manner as above except that, normally, a highlighted (preferably red ink) sketch of the changes to be incorporated into the new drawings **MUST** be approved by the examiner before the application will be allowed. No changes will be permitted to be made, other than correction of informalities, unless the examiner has approved the proposed changes.

**Timing of Corrections**

Applicant is required to submit the drawing corrections within the time period set in the attached Office communication. See 37 CFR 1.85(a).

Failure to take corrective action within the set period will result in **ABANDONMENT** of the application.